Web Content Accessibility Guidelines 2.0 level AA Checklist

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Name of Product: SoftChalk Create 10 (both desktop and cloud web-launch versions)
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Introduction

SoftChalk Create is a digital curriculum authoring product that educators use to create web-based learning content. This learning content (essentially html page content) is delivered to students who use a web browser to view the learning content. This document addresses the accessibility (as tested against Level A and Level AA criteria of the World Wide Web Consortium's Web Content Accessibility Guidelines (WCAG 2.0)) of the web-based learning content that can be produced by SoftChalk Create.

The SoftChalk Create product is itself not a web/html-based product. There are two versions of SoftChalk Create – one is installed on and runs from a computer desktop, and the other is launched from a website. In both cases, the SoftChalk Create authoring product is a compiled java program that the content author uses to generate html-based learning content. For information about the accessibility of the SoftChalk Create authoring interface, please review the SoftChalk Create VPAT available from the softchalk.com website.

The web-based learning content that is produced by an author who is using the SoftChalk Create product is typically referred to as a "lesson." Lessons can vary greatly, depending on what materials the author chooses to include in their lesson. Typically as lesson includes text, images, and page navigation. It may also include media such as audio and video files, as well as interactive quiz questions, interactive learning activities and text annotations. It is also possible to embed within a SoftChalk lesson other materials such as web links, iframes, pdf files, and materials produced by other content authoring programs.

At SoftChalk we have worked closely with our clients and other industry experts to include and adapt product features to enable authors to produce accessible learning content using SoftChalk Create. However, each content author is in control of the content and materials that are included in the lessons they produce with SoftChalk. The included content may or may not be accessible (e.g. an included video may or may not include captions). There are many features in SoftChalk Create that automatically include accessibility features in the produced content. For example, SoftChalk automatically includes "Skip Navigation" links to allow the student who is using a Screen Reader to more quickly navigate to the main content areas of the page.

In the Checklist below, we address the web page accessibility features of the web-based lesson pages that SoftChalk Create produces. Where a checklist item may depend on content choices of the content author, we indicate this by including the notation "Users control their own content".

Principle 1: Perceivable – information and user interface components must be presentable to users in ways they can perceive.

Standard	Description	Comments
Guideline 1.1 Text Alternatives: Provide text alternatives for any non-text content so that it can be changed into other forms people need, such as large print, braille, speech, symbols or simpler language.		
1.1.1	Non-text Content: All non-text content that is presented to the user has a text alternative that serves the equivalent purpose, except for the situations listed below (Level A). • Controls, Input: If non-text content is a control or accepts user input, then it has a name that describes its purpose. (Refer to Guideline 4.1 for additional requirements for controls and content that accepts user input.) • Time-Based Media: If non-text content is time-based media, then text alternatives at least provide descriptive identification of the non-text content. (Refer to Guideline 1.2 for the additional requirements for media.) • Test: If non-text content is a test or exercise that would be invalid if presented in text, then text alternatives at least provide descriptive identification of the non-text content. • Sensory: If non-text content is primarily intended to create a specific sensory experience, then text alternatives at least provide descriptive identification of the non-text content. • CAPTCHA: If the purpose of non-text content is to confirm that content is being accessed by a person rather than a computer, then text alternatives that identify and describe the purpose of the non-text content are provided, and alternative forms of CAPTCHA using output modes for different types of sensory perception are provided to accommodate different disabilities. • Decorative, Formatting, Invisible: If non-text content is pure decoration, is used only for visual formatting, or is not presented to users, then it is implemented in a way that it can be ignored by assistive technology.	Users control their own content when creating lessons. SoftChalk Create provides authors the ability to include the following in their content: • ALT tags for images; text descriptions for non-text content such as video and audio (which are associated with the media element in the lesson) • When an interactive activity is included in a lesson, SoftChalk Create automatically provides a text-based description of the activity and provides a way for the content author to provide additional descriptive information or information about an alternative activity. In addition, SoftChalk Create includes these accessibility features in the web lesson pages it produces: • Images that do not convey content are given a null alt text. • Form buttons (for interactive quiz questions and activities) have descriptive values and form inputs have text labels. • CAPTCHAs are not used
Guideline 1.2 Time-based Media: Provide alternatives for time-based media.		

1.2.1	Audio-only and Video-only (Prerecorded): For prerecorded audio-only and prerecorded video-only media, the following are true, except when the audio or video is a media alternative for text and is clearly labeled as such (Level A): • Prerecorded Audio-only: An alternative for time-based media is provided that presents equivalent information for prerecorded audio-only content. • Prerecorded Video-only: Either an alternative for time-based media or an audio track is provided that presents equivalent information for prerecorded video-only content.	The content author controls their own content. SoftChalk Create provides a way for the author to include an alternative text description for each audio or video media element in the lesson, and if provided, the text alternative is clearly labeled as such.
1.2.2	Captions (Prerecorded): Captions are provided for all prerecorded audio content in synchronized media, except when the media is a media alternative for text and is clearly labeled as such. (Level A)	The content author controls their own media content.
1.2.3	Audio Description or Media Alternative (Prerecorded): An alternative for time-based media or audio description of the prerecorded video content is provided for synchronized media, except when the media is a media alternative for text and is clearly labeled as such. (Level A)	The content author controls their own media content.
1.2.4	Captions (Live): Captions are provided for all live audio content in synchronized media. (Level AA)	The content author controls their own media content.
1.2.5	Audio Description (Prerecorded): Audio description is provided for all prerecorded video content in synchronized media. (Level AA)	The content author controls their own media content.
1.2.6	Sign Language (Prerecorded): Sign language interpretation is provided for all prerecorded audio content in synchronized media. (Level AAA)	The content author controls their own media content.
1.2.7	Extended Audio Description (Prerecorded): Where pauses in foreground audio are insufficient to allow audio descriptions to convey the sense of the video, extended audio description is provided for all prerecorded video content in synchronized media. (Level AAA)	The content author controls their own media content.
1.2.8	Media Alternative (Prerecorded): An alternative for time-based media is provided for all prerecorded synchronized media and for all prerecorded video-only media. (Level AAA)	The content author controls their own media content.
1.2.9	Audio-only (Live): An alternative for time-based media that presents equivalent information for live audio-only content is provided. (Level AAA)	The content author controls their own media content.
Guideline 1.3 Adaptable: Create content that can be presented in different ways (for example simpler layout) without losing information or structure.		

1.3.1	Info and Relationships: Information, structure, and relationships conveyed through presentation can be programmatically determined or are available in text. (Level A)	Semantic markup (headings, lists, etc.) is used appropriately to designate headings and emphasized text. Headings and ARIA landmarks are used to help convey presentation. The table feature in SoftChalk allows the content author to include headers within a table.
1.3.2	Meaningful Sequence: When the sequence in which content is presented affects its meaning, a correct reading sequence can be programmatically determined. (Level A)	Pages are linear and can be read clearly without style sheets
1.3.3	Sensory Characteristics: Instructions provided for understanding and operating content do not rely solely on sensory characteristics of components such as shape, size, visual location, orientation, or sound. (Level A)	Instructions do not rely on shape, size or visual location and instructions do not rely solely upon sound.
Guideline 1.4 Distinguishable: Make it easier for users to see and hear content including separating foreground from background.		
1.4.1	Use of Color: Color is not used as the only visual means of conveying information, indicating an action, prompting a response, or distinguishing a visual element. (Level A)	Color is not used as the sole method of conveying content or distinguishing visual elements.
1.4.2	Audio Control: If any audio on a Web page plays automatically for more than 3 seconds, either a mechanism is available to pause or stop the audio, or a mechanism is available to control audio volume independently from the overall system volume level. (Level A)	Audio is not configured to play automatically on a page.
1.4.3	Contrast (Minimum): The visual presentation of text and images of text has a contrast ratio of at least 4.5:1, except for the following: (Level AA) • Large Text: Large-scale text and images of large-scale text have a contrast ratio of at least 3:1; • Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • Logotypes: Text that is part of a logo or brand name has no minimum contrast requirement.	Content authors can apply custom style formatting to their content. Institutions and individual authors can choose their own foreground and background colors. Users control their own content.
1.4.4	Resize text: Except for captions and images of text, text can be resized without assistive technology up to 200 percent without loss of content or functionality. (Level AA)	Text and images can be resized with the browser zoom feature. The page is readable and functional when the text size is doubled.
1.4.5	Images of Text: If the technologies being used can achieve the visual presentation, text is used to convey information rather than images of text except for the following: (Level AA) • Customizable: The image of text can be visually customized to the user's requirements; • Essential: A particular presentation of text is essential to the information being conveyed.	Images of text are not used. Users control their own content.

1.4.6	Contrast (Enhanced): The visual presentation of text and images of text has a contrast ratio of at least 7:1, except for the following: (Level AAA) • Large Text: Large-scale text and images of large-scale text have a contrast ratio of at least 4.5:1; • Incidental: Text or images of text that are part of an inactive user interface component, that are pure decoration, that are not visible to anyone, or that are part of a picture that contains significant other visual content, have no contrast requirement. • Logotypes: Text that is part of a logo or brand name has no minimum contrast requirement.	Content authors can apply custom style formatting to their content. Institutions and individual authors can choose their own foreground and background colors. Users control their own content.
1.4.7	Low or No Background Audio: For prerecorded audio-only content that (1) contains primarily speech in the foreground, (2) is not an audio CAPTCHA or audio logo, and (3) is not vocalization intended to be primarily musical expression such as singing or rapping, at least one of the following is true: (Level AAA) • No Background: The audio does not contain background sounds. • Turn Off: The background sounds can be turned off. • 20 dB: The background sounds are at least 20 decibels lower than the foreground speech content, with the exception of occasional sounds that last for only one or two seconds.	SoftChalk does not allow background audio in the lesson pages.
1.4.8	Visual Presentation: For the visual presentation of blocks of text, a mechanism is available to achieve the following: (Level AAA) • Foreground and background colors can be selected by the user. • Width is no more than 80 characters or glyphs (40 if CJK). • Text is not justified (aligned to both the left and the right margins). • Line spacing (leading) is at least space-and-a-half within paragraphs, and paragraph spacing is at least 1.5 times larger than the line spacing. • Text can be resized without assistive technology up to 200 percent in a way that does not require the user to scroll horizontally to read a line of text on a full-screen window.	Content authors can apply custom style sheets to their content. Institutions and individual authors can choose their own foreground and background colors. Text resizes with the browser zoom features. Users control their own content.
1.4.9	Images of Text (No Exception): Images of text are only used for pure decoration or where a particular presentation of text is essential to the information being conveyed. (Level AAA)	Images of text are not used. Users control their own content.

Principle 2: Operable - User interface components and navigation must be operable.

Standard	Description	Comments
Guideline 2.1 Keyboard Accessible: Make all functionality available from a keyboard.		

2.1.1	Keyboard: All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes, except where the underlying function requires input that depends on the path of the user's movement and not just the endpoints. (Level A)	Users control their own content. All aspects of the web content pages are accessible via the keyboard tab and arrow keys. When creating a less, the content author may optionally include an interactive activity. Of the 21 interactive activities that can be used in SoftChalk content, 14 of them are keyboard accessible and 7 are not. By keyboard accessible we mean that the student can complete the activity using only the keyboard to access the activity. The 7 exceptions include: HotSpot, Timeline, Identify, Pairs, Align, Sequence and Selection activities. As an alternative to using the activities types that are not accessible, the content author may choose to use any of the 14 activity types that are accessible via the keyboard, or they can use the interactive quiz questions that are accessible via the keyboard.
2.1.2	No Keyboard Trap: If keyboard focus can be moved to a component of the page using a keyboard interface, then focus can be moved away from that component using only a keyboard interface, and, if it requires more than unmodified arrow or tab keys or other standard exit methods, the user is advised of the method for moving focus away. (Level A)	Keyboard focus is not locked or trapped at any one particular page element. The user can navigate to and from all navigable page elements using only a keyboard.
2.1.3	Keyboard (No Exception): All functionality of the content is operable through a keyboard interface without requiring specific timings for individual keystrokes. (Level AAA)	Yes

	Guideline 2.2 Enough Time: Provide users enough time to read and use content.	
2.2.1	Timing Adjustable: For each time limit that is set by the content, at least one of the following is true: (Level A) • Turn off: The user is allowed to turn off the time limit before encountering it; or • Adjust: The user is allowed to adjust the time limit before encountering it over a wide range that is at least ten times the length of the default setting; or • Extend: The user is warned before time expires and given at least 20 seconds to extend the time limit with a simple action (for example, "press the space bar"), and the user is allowed to extend the time limit at least ten times; or • Real-time Exception: The time limit is a required part of a real-time event (for example, an auction), and no alternative to the time limit is possible; or • Essential Exception: The time limit is essential and extending it would invalidate the activity; or • 20 Hour Exception: The time limit is longer than 20 hours.	There are no SoftChalk lesson components that use timers or time limits.
2.2.2	Pause, Stop, Hide: For moving, blinking, scrolling, or auto-updating information, all of the following are true: (Level A) • Moving, blinking, scrolling: For any moving, blinking or scrolling information that (1) starts automatically, (2) lasts more than five seconds, and (3) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it unless the movement, blinking, or scrolling is part of an activity where it is essential; and • Auto-updating: For any auto-updating information that (1) starts automatically and (2) is presented in parallel with other content, there is a mechanism for the user to pause, stop, or hide it or to control the frequency of the update unless the auto-updating is part of an activity where it is essential.	Users control their own content. SoftChalk lesson pages do not include moving, blinking or scrolling text. When activities or quiz questions in a lesson include a score (this is option and under the control of the content author), the lesson score window auto-updates. The student has the ability to close the score window.
2.2.3	No Timing: Timing is not an essential part of the event or activity presented by the content, except for non-interactive synchronized media and real-time events. (Level AAA)	There are no SoftChalk lesson components that use timers or time limits.
2.2.4	Interruptions: Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency. (Level AAA)	There are no SoftChalk lesson components that support interruptions
2.2.5	Interruptions: Interruptions can be postponed or suppressed by the user, except interruptions involving an emergency. (Level AAA)	There are no SoftChalk lesson components that support interruptions
	Guideline 2.3 Seizures: Do not design content in a way that is known to cause seizures.	
2.3.1	Three Flashes or Below Threshold: Web pages do not contain anything that flashes more than three times in any one second period, or the flash is below the general flash and red flash thresholds. (Level A)	SoftChalk does not use flashes or flashing objects. Users control their own content.

2.3.2	Three Flashes: Web pages do not contain anything that flashes more than three times in any one second period. (Level AAA)	SoftChalk does not use flashes or flashing objects. Users control their own content.

Guideline 2.4 Navigable: Provide ways to help users navigate, find content, and determine where they are.		
2.4.1	Bypass Blocks: A mechanism is available to bypass blocks of content that are repeated on multiple Web pages. (Level A)	SoftChalk provides a "Skip Navigation" link that allows the student to skip past redundant navigation information in the page and go directly to the main content area of the page more efficiently.
2.4.2	Page Titled: Web pages have titles that describe topic or purpose. (Level A)	Each SoftChalk lesson page has a page title that corresponds to the page navigation used in the page.
2.4.3	Focus Order: If a Web page can be navigated sequentially and the navigation sequences affect meaning or operation, focusable components receive focus in an order that preserves meaning and operability. (Level A)	Each lesson page has a logical tab order so that the focus can progress in a logical way thru the page.
2.4.4	Link Purpose (In Context): The purpose of each link can be determined from the link text alone or from the link text together with its programmatically determined link context, except where the purpose of the link would be ambiguous to users in general. (Level A)	Links that are part of the standard SoftChalk page are designed such that the purpose of the link can be determined from the link text alone or from the link text and its context. Users control their own content.
2.4.5	Multiple Ways: More than one way is available to locate a Web page within a set of Web pages except where the Web Page is the result of, or a step in, a process. (Level AA)	Users control their own content and have the ability to include multiple ways to navigate between pages of a lesson (e.g. table of contents can be made available in three different ways in a lesson).
2.4.6	Headings and Labels: Headings and labels describe topic or purpose. (Level AA)	SoftChalk pages that include interactive quiz questions and activities use forms with labels to describe their purpose. Users control their own content and can use headings to describe topic and purpose within a lesson.
2.4.7	Focus Visible: Any keyboard operable user interface has a mode of operation where the keyboard focus indicator is visible. (Level AA)	It is visually apparent which page element has the current keyboard focus as you tab thru the page.

2.4.8	Location: Information about the user's location within a set of Web pages is available. (Level AAA)	A consistent navigation area at the top of pages provides quick access to move between pages and indicates the user's location within a set of lesson pages. Users control their own content
2.4.9	Link Purpose (Link Only): A mechanism is available to allow the purpose of each link to be identified from link text alone, except where the purpose of the link would be ambiguous to users in general. (Level AAA)	SoftChalk pages include links with text that is unique and contextual. Users control their own content
2.4.10	Section Headings: Section headings are used to organize the content. (Level AAA)	Users control their own content and have the ability to add section headings to organize their content.

Principle 3: Understandable - Information and the operation of user interface must be understandable.

Standard	Description	Comments
Guideline 3.1 Readable: Make text content readable and understandable.		
3.1.1	Language of Page: The default human language of each Web page can be programmatically determined. (Level A)	Yes.
3.1.2	Language of Parts: The human language of each passage or phrase in the content can be programmatically determined except for proper names, technical terms, words of indeterminate language, and words or phrases that have become part of the vernacular of the immediately surrounding text. (Level AA)	The human language may be changed by the content author, but SoftChalk does not provide a way for the content author to indicate a language change in the underlying page mark up
3.1.3	Unusual Words: A mechanism is available for identifying specific definitions of words or phrases used in an unusual or restricted way, including idioms and jargon. (Level AAA)	SoftChalk does not provide an automated mechanism. Users control their own content and have the ability to provide this information as desired.
3.1.4	Abbreviations: A mechanism for identifying the expanded form or meaning of abbreviations is available. (Level AAA)	SoftChalk does not provide an automated mechanism. Users control their own content and have the ability to provide this information as desired.
3.1.5	Reading Level: When text requires reading ability more advanced than the lower secondary education level after removal of proper names and titles, supplemental content, or a version that does not require reading ability more advanced than the lower secondary education level, is available. (Level AAA)	SoftChalk does not provide an automated mechanism. Users control their own content and have the ability to provide this information as desired.

3.1.6	Pronunciation: A mechanism is available for identifying specific pronunciation of words where meaning of the words, in context, is ambiguous without knowing the pronunciation. (Level AAA)	SoftChalk does not provide an automated mechanism. Users control their own content and have the ability to provide this information as desired.
Guideline 3.2 Predictable: Make Web pages appear and operate in predictable ways.		
3.2.1	On Focus: When any component receives focus, it does not initiate a change of context. (Level A)	Yes.
3.2.2	On Input: Changing the setting of any user interface component does not automatically cause a change of context unless the user has been advised of the behavior before using the component. (Level A)	Yes.
3.2.3	Consistent Navigation: Navigational mechanisms that are repeated on multiple Web pages within a set of Web pages occur in the same relative order each time they are repeated, unless a change is initiated by the user. (Level AA)	Yes. Navigation links that are repeated on the lesson pages do not change order when navigating thru the lesson. Users control their own content and have the ability to remove or customize navigation as desired.
3.2.4	Consistent Identification: Components that have the same functionality within a set of Web pages are identified consistently. (Level AA)	Yes.
3.2.5	Change on Request: Changes of context are initiated only by user request or a mechanism is available to turn off such changes. (Level AAA)	Yes.
Guideline 3.3 Input Assistance: Help users avoid and correct mistakes.		
3.3.1	Error Identification: If an input error is automatically detected, the item that is in error is identified and the error is described to the user in text. (Level A)	Yes.
3.3.2	Labels or Instructions: Labels or instructions are provided when content requires user input. (Level A)	Yes. Users control their own content and have the ability to modify/provide this information as desired.
3.3.3	Error Suggestion: If an input error is automatically detected and suggestions for correction are known, then the suggestions are provided to the user, unless it would jeopardize the security or purpose of the content. (Level AA)	NA. SoftChalk lessons do not include auto detection of input errors.
3.3.4	Error Prevention (Legal, Financial, Data): For Web pages that cause legal commitments or financial transactions for the user to occur, that modify or delete user-controllable data in data storage systems, or that submit user test responses, at least one of the following is true: (Level AA) • Reversible: Submissions are reversible. • Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them. • Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission.	NA
3.3.5	Help: Context-sensitive help is available. (Level AAA)	No.

| 3.3.6 | Error Prevention (All): For Web pages that require the user to submit information, at least one of the following is true: (Level AAA)
 • Reversible: Submissions are reversible.
 • Checked: Data entered by the user is checked for input errors and the user is provided an opportunity to correct them.
 • Confirmed: A mechanism is available for reviewing, confirming, and correcting information before finalizing the submission. | When students complete interactive quiz questions or activities, they do not have the ability to reverse their submissions, and answer input is not checked for input errors prior to submission.

 Users control their own content and the content author does have the ability to give the student the opportunity to "retry" a question or activity if desired. |

Principle 4: Robust - Content must be robust enough that it can be interpreted reliably by a wide variety of user agents, including assistive technologies.

Standard	Description	Comments
Guideline 4.1 Compatible: Maximize compatibility with current and future user agents, including assistive technologies.		
4.1.1	Parsing: In content implemented using markup languages, elements have complete start and end tags, elements are nested according to their specifications, elements do not contain duplicate attributes, and any IDs are unique, except where the specifications allow these features. (Level A)	Yes. All web pages are written to HTML5 specifications.
4.1.2	Name, Role, Value: For all user interface components (including but not limited to: form elements, links and components generated by scripts), the name and role can be programmatically determined; states, properties, and values that can be set by the user can be programmatically set; and notification of changes to these items is available to user agents, including assistive technologies. (Level A)	Yes. Form elements (used for interactive quizzes and activities) are developed and validated against HTML5 specifications and standards.